

CLAIMS

1. A file recording apparatus for editing video data in accordance with a command input by a user and recording the resultant edited video data in the form of a file,

5 the file including

 a block of real data management information which is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described and an effect

10 track in which management information associated with an effect to be applied to the video data is described, and

 a block of real data including at least real data associated with the effect track,

15 the file recording apparatus forming, in the block of management information, at least

 an alternate track including video data equivalent to video data obtained by performing a process according to the effect track, and

20 information indicating the processing priority level assigned to the alternate track of the video data with respect to the processing priority level assigned to another track.

25 2. The file recording apparatus according to Claim 1, wherein an alternate track for an alternative use of the effect track is formed in the block of management

information, the alternate track including an effect which is an alternative to the effect described in the effect track.

3. The file recording apparatus according to Claim 2,
5 wherein the information indicating the priority level is described in a block of user data of the alternate track including the video data and also in a block of user data of the alternate track for alternative use of the effect track.

4. The file recording apparatus according to Claim 3,
10 wherein in the block of the user data, property information associated with the corresponding track is described.

5. The file recording apparatus according to Claim 1,
wherein the alternate track including the video data is formed such that real data of the video that is assigned
15 only in a period in which a change occurs in the video data when the effect track is applied to the video data.

6. The file recording apparatus according to Claim 1,
wherein the alternate track including the video data is a
track of management information associated with an effect to
20 be applied to another source track including video data obtained as a result of applying the effect track to the original video data.

7. A file recording method including editing video data in accordance with a command input by a user and
25 recording the resultant edited video data in the form of a

file,

the file including

a block of real data management information which
is organized in a hierarchical structure and which includes

5 at least a source track in which management information
associated with the video data is described and an effect
track in which management information associated with an
effect to be applied to the video data is described, and

a block of real data including at least real data
10 associated with the effect track,

the file recording method including the step of forming,
in the block of management information, at least

an alternate track including video data equivalent
to video data obtained by performing a process according to
15 the effect track, and

information indicating the processing priority
level assigned to the alternate track of the video data with
respect to the processing priority level assigned to another
track.

20 8. A program for causing a computer to execute a file
recording process including editing video data in accordance
with a command input by a user and recording the resultant
edited video data in the form of a file,

the file including

25 a block of real data management information which

is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described and an effect track in which management information associated with an 5 effect to be applied to the video data is described, and a block of real data including at least real data associated with the effect track,

the program of the file recording process including the step of forming, in the block of management information, at 10 least

an alternate track including video data equivalent to video data obtained by performing a process according to the effect track, and

information indicating the processing priority

15 level assigned to the alternate track of the video data with respect to the processing priority level assigned to another track.

9. A storage medium in which a program for causing a computer to execute a file recording process is stored, the 20 file recording process including editing video data in accordance with a command input by a user and recording the resultant edited video data in the form of a file,

the file including

a block of real data management information which 25 is organized in a hierarchical structure and which includes

at least a source track in which management information associated with the video data is described and an effect track in which management information associated with an effect to be applied to the video data is described, and

5 a block of real data including at least real data associated with the effect track;

the program of the file recording process including the step of forming, in the block of management information, at least

10 forming at least an alternate track including video data equivalent to video data obtained by performing a process according to the effect track, and

information indicating the processing priority level assigned to the alternate track of the video data with respect to the processing priority level assigned to another track.

10. A file playback apparatus adapted to play back video data recorded in the form of a file on a recording medium and output the resultant video data,

20 the file including

a block of real data management information which is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described, an effect track 25 in which management information associated with an effect to

be applied to the video data is described, and an alternate track including video data equivalent to video data obtained by performing a process according to the effect track, and information indicating the processing priority level

5 assigned to the alternate track of the video data with respect to the processing priority level assigned to another track, and

a block of real data including at least real data associated with the effect track,

10 the file playback apparatus performing a process including the step of

detecting a processable alternate track in the order from the highest priority level to lower priority levels based on the information indicating the priority

15 level and playing back the file using the detected alternate track.

11. A file playback method of playing back video data recorded in the form of a file on a recording medium and outputting the resultant video data,

20 the file including

a block of real data management information which is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described, an effect track 25 in which management information associated with an effect to

be applied to the video data is described, and an alternate track including video data equivalent to video data obtained by performing a process according to the effect track, and information indicating the processing priority level

5 assigned to the alternate track of the video data with respect to the processing priority level assigned to another track, and

a block of real data including at least real data associated with the effect track,

10 the file playback method including the step of detecting a processable alternate track in the order from the highest priority level to lower priority levels based on the information indicating the priority level and playing back the file using the detected alternate track.

15 12. A program for causing a computer to execute a file playback process including playing back video data recorded in the form of a file on a recording medium and outputting the resultant video data,

the file including

20 a block of real data management information which is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described, an effect track in which management information associated with an effect to be applied to the video data is described, and an alternate

track including video data equivalent to video data obtained by performing a process according to the effect track, and information indicating the processing priority level assigned to the alternate track of the video data with respect to the processing priority level assigned to another track, and

a block of real data including at least real data associated with the effect track,

the program of the file playback process including the step of

detecting a processable alternate track in the order from the highest priority level to lower priority levels based on the information indicating the priority level and playing back the file using the detected alternate track.

13. A storage medium in which a program for causing a computer to execute a file playback process is stored, the file playback process including playing back video data recorded in the form of a file on a recording medium and outputting the resultant video data,

the file including

a block of real data management information which is organized in a hierarchical structure and which includes at least a source track in which management information associated with the video data is described, an effect track

in which management information associated with an effect to
be applied to the video data is described, and an alternate
track including video data equivalent to video data obtained
by performing a process according to the effect track, and
5 information indicating the processing priority level
assigned to the alternate track of the video data with
respect to the processing priority level assigned to another
track, and

a block of real data including at least real data
10 associated with the effect track,

the program of the file playback process including the
step of

detecting a processable alternate track in the
order from the highest priority level to lower priority
15 levels based on the information indicating the priority
level and playing back the file using the detected alternate
track.